CLAIMS

What is claimed is:

1. A heat transfer material comprising:
a substrate layer;
a release coating layer;
a peelable film layer; and
a discontinuous polymer layer having an opacifying material.

2. The heat transfer material of Claim 1, wherein the opacifying material is a white pigment.

3. The heat transfer material of Claim 1, wherein the discontinuous polymer layer includes a crosslinking agent.

4. The heat transfer material of Claim 3, wherein the crosslinking agent is selected from multifunctional isocyanates, epoxy resins, aziridines, oxazolines, and melamine-formaldehyde resins.

5. The heat transfer material of Claim 1, further comprising a discontinuous printable layer adjacent the discontinuous polymer layer.

6. The heat transfer material of Claim 5, wherein the discontinuous printable layer includes a crosslinking agent.

7. The heat transfer material of Claim 6, wherein the crosslinking agent is selected from multifunctional isocyanates, epoxy resins, aziridines, oxazolines, and melamine-formaldehyde resins.

8. The heat transfer material of Claim 5, wherein the discontinuous polymer layer includes a white pigment.

9. The heat transfer material of Claim 6, wherein the discontinuous printable layer and the discontinuous polymer layer each include a crosslinking agent.

10. The heat transfer material of Claim 9, wherein the crosslinking agent is a polyfunctional aziridine crosslinking agent.

11. The heat transfer material of Claim 1, wherein the peelable film layer is selected from polyolefins; polyethylene; ethylene-containing copolymers, or mixtures thereof.

12. The heat transfer material of Claim 1, wherein the peelable film layer includes an additive selected from a release agent, an ethoxylated alcohol surfactant; a nonionic surfactant; a wax, or mixtures thereof.

13. The heat transfer material of Claim 1, wherein the release coating layer is selected from silicone-containing polymers; acrylic polymers; poly(vinyl acetate); polysiloxanes; fluorocarbon polymers; or mixtures thereof.

14. The heat transfer material of Claim 1, wherein the release coating layer includes an additive selected from a cross-linking agent; a release-modifying additive; a curing agent; a surfactant; a viscosity-modifying agent; or mixtures thereof.

15. The heat transfer material of Claim 1, wherein the substrate layer is selected from cellulosic nonwoven webs and polymeric films.

16. A heat transfer material comprising:
a substrate layer;
a release coating layer;
a peelable film layer;
a discontinuous polymer layer having an opacifying material; and
a discontinuous printable layer.

17. The heat transfer material of Claim 16, wherein the release coating layer is selected from silicone-containing polymers; acrylic polymers; poly(vinyl acetate); polysiloxanes; fluorocarbon polymers; or mixtures thereof.

18. The heat transfer material of Claim 16, wherein the release coating layer includes an additive selected from a cross-linking agent; a release-modifying additive; a curing agent; a surfactant; a viscosity-modifying agent; or mixtures thereof.

19. The heat transfer material of Claim 16, wherein the substrate layer is selected from cellulosic nonwoven webs and polymeric films.

20. The heat transfer material of Claim 16, wherein the opaque discontinuous printable layer includes a crosslinking agent.

21. The heat transfer material of Claim 20, wherein the crosslinking agent is a polyfunctional aziridine crosslinking agent.

22. A heat transfer material comprising:
a substrate layer;
a release coating layer;
a peelable film layer; and
a discontinuous printable layer.

23. The heat transfer material of Claim 22, wherein the peelable film layer is selected from polyolefins; polyethylene; ethylene-containing copolymers, or mixtures thereof.

24. The heat transfer material of Claim 22, wherein the peelable film layer includes an additive selected from a release agent, an ethoxylated alcohol surfactant; a nonionic surfactant; a wax, or mixtures thereof.

25. The heat transfer material of Claim 22, wherein the release coating layer is selected from silicone-containing polymers; acrylic polymers; poly(vinyl acetate); polysiloxanes; fluorocarbon polymers; or mixtures thereof.

26. The heat transfer material of Claim 22, wherein the release coating layer includes an additive selected from a cross-linking agent; a release-modifying additive; a curing agent; a surfactant; a viscosity-modifying agent; or mixtures thereof.

27. The heat transfer material of Claim 22, wherein the substrate layer is selected from cellulosic nonwoven webs and polymeric films.

28. The heat transfer material of Claim 22, wherein the discontinuous printable layer includes a crosslinking agent.

29. The heat transfer material of Claim 28, wherein the crosslinking agent is a polyfunctional aziridine crosslinking agent.

30. A method of forming an image-bearing coating on a surface, wherein the method comprises:

removing a non-transferable portion of a heat transfer material, wherein the heat transfer material comprises a substrate layer, a release coating layer, a peelable film layer, and a discontinuous polymer layer and the non-transferable portion of

the heat transfer material comprises the substrate layer and the release coating layer;

placing the peelable film layer on the surface with the discontinuous polymer layer exposed; and

applying heat and pressure to the exposed discontinuous polymer layer.

31. A method of making a printable heat transfer material comprising:

applying a release coating layer onto a substrate layer;

applying a peelable film coating onto the release coating layer; and

applying a discontinuous layer of polymer to the peelable film.

32. The method of Claim 31, wherein the discontinuous layer of polymer is selected from an opaque polymer layer, a printable layer, a crosslinked opaque layer, a crosslinked printable layer, or a combination of these layers.